

09/704,574

(FILE 'HOME' ENTERED AT 10:52:06 ON 28 APR 2003)

FILE 'CAPLUS, EMBASE, BIOSIS, MEDLINE, WPIDS' ENTERED AT 10:52:41 ON 28 APR 2003

L1 52 S (ASSAY? OR DETECT? OR METHOD? OR IDENTIFY?) (3A) (LEAD? OR CAND
L2 41 DUP REM L1 (11 DUPLICATES REMOVED)
L3 472 S (INGRAM, V? OR INGRAM V?)/AU, IN
L4 479 S (BLANCHARD, B? OR BLANCHARD B?)/AU, IN
L5 50 S L3 AND L4
L6 22 DUP REM L5 (28 DUPLICATES REMOVED)
L7 901 S L3 OR L4
L8 14 S L7 AND (POTENTIOMET? OR DIBAC? OR DEPOLARIZ?)
L9 5 DUP REM L8 (9 DUPLICATES REMOVED)

FILE 'STNGUIDE' ENTERED AT 11:01:01 ON 28 APR 2003

FILE 'CAPLUS, EMBASE, BIOSIS, MEDLINE, WPIDS' ENTERED AT 11:01:43 ON 28 APR 2003

L10 43288 S (MEMBRANE? OR NEURON? OR NEURAL? OR NERVE?) (3A) (DEPOLARIZ?)
L11 44 S L10 AND (DIBAC?)
L12 21 DUP REM L11 (23 DUPLICATES REMOVED)
L13 2 S AMYLOID? AND DIBAC?
L14 6256 S CNQX
L15 2 S L14 AND DIBAC?
L16 12388 S (CELLULAR OR CELL OR CELLS) (3A) (DEPOLARIZAT?)
L17 89 S (DETECT? OR ASSAY? OR IDENTIFY?) (10A) L16
L18 45 DUP REM L17 (44 DUPLICATES REMOVED)
L19 1 S L18 AND (AMYLOID? OR AGGREGAT? OR ALZHEIMER?)
L20 7 S L17 AND (CANDIDAT? OR LEAD?)

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L9 ANSWER 4 OF 5 BIOSIS COPYRIGHT 2003 BIOLOGICAL ABSTRACTS INC.
 AN 2001:91304 BIOSIS
 DN PREV200100091304
 TI Alzheimer beta-amyloid aggregate causes membrane **depolarization**
 in neurons.
 AU Ingram, V. M. (1); Blanchard, B. J.
 CS (1) Massachusetts Inst Technol, Cambridge, MA USA
 SO Society for Neuroscience Abstracts, (2000) Vol. 26, No. 1-2, pp. Abstract
 No.-299.10. print.
 Meeting Info.: 30th Annual Meeting of the Society of Neuroscience New
 Orleans, LA, USA November 04-09, 2000 Society for Neuroscience
 . ISSN: 0190-5295.
 DT Conference
 LA English
 SL English
 AB Aggregated Alzheimer beta-amyloid peptide Asz1-42 acts on differentiated
 human hNT neuronal cells, and NGF-stimulated PC12 cells, to produce
 long-lasting membrane **depolarization**, as well as causing a rapid
 but long-lasting influx of external Ca²⁺ (Blanchard et al., J Alz. Dis.
 2000; in press). Membrane **depolarization** was detected by the
 increased fluorescence of the bis-oxonol dye DiBAC4(3), and
 cytosolic calcium was monitored with the ratiometric dye fura-2. Although
 triggered at the same time, it seems that two distinct processes are
 involved, since the addition of CNQX, an AMPA/kainate channel antagonist,
 eliminates the calcium influx, but does not reduce the membrane
depolarization. These findings provide a plausible model for the
 production of cellular dysfunction and eventual cell death of neurons in
 Alzheimer's disease that are chronically exposed to the neurotoxic
 Asz1-42.
 CC Nervous System - Pathology *20506
 General Biology - Symposia, Transactions and Proceedings of Conferences,
 Congresses, Review Annuals *00520
 Cytology and Cytochemistry - Animal *02506
 Cytology and Cytochemistry - Human *02508
 Behavioral Biology - Human Behavior *07004
 Biochemical Studies - Minerals *10069
 Nervous System - Physiology and Biochemistry *20504
 Psychiatry - Psychopathology; Psychodynamics and Therapy *21002
 Toxicology - General; Methods and Experimental *22501
 BC Hominidae 86215
 Muridae 86375
 IT Major Concepts
 Nervous System (Neural Coordination); Toxicology
 IT Parts, Structures, & Systems of Organisms
 neurons: nervous system
 IT Diseases
 Alzheimer's disease: behavioral and mental disorders, nervous system
 disease
 IT Chemicals & Biochemicals
 beta-amyloid peptide: aggregated, neurotoxin; calcium(II) ion: influx
 IT Alternate Indexing
 Alzheimer Disease (MeSH)
 IT Miscellaneous Descriptors
 cell death; membrane **depolarization**; Meeting Abstract
 ORGN Super Taxa
 Hominidae: Primates, Mammalia, Vertebrata, Chordata, Animalia; Muridae:
 Rodentia, Mammalia, Vertebrata, Chordata, Animalia
 ORGN Organism Name
 PC12 cell line (Muridae); human (Hominidae)
 ORGN Organism Superterms
 Animals; Chordates; Humans; Mammals; Nonhuman Mammals; Nonhuman
 Vertebrates; Primates; Rodents; Vertebrates
 RN 14127-61-8 (CALCIUM(II) ION)

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